

UNIVERSITY OF CALIFORNIA
COLLEGE OF AGRICULTURE
AGRICULTURAL EXPERIMENT STATION

JUNE, 1922

APRICOT BROWN ROT CONTROL

BY B. A. RUDOLPH

Since Circular No. 238 was prepared, extensive spraying experiments have yielded new information upon the subject of controlling Brown Rot. The present leaflet therefore supersedes much of that which is said upon this subject in the circular and should be followed wherever the statements seem to conflict. Emphasis should be placed upon the importance of spraying in the early blooming period, the necessity of spraying badly diseased orchards more than once during this period, the use of strong Bordeaux mixture, the value of cutting out the old, diseased twigs and spurs which form the principal source of infection during the following spring, and the inadvisability of spraying apricots with lime-sulphur on account of the danger of injury.

The critical or strategic period of spraying for this disease lies in the spring, just before and during the bloom. Infection usually takes place at any time after the buds commence to crack, showing the white, folded petals beneath the red sepals, continuing until the petals have fallen and the jackets are shed. Because of this relatively long period during which infection may take place, it has repeatedly been found that a single application of spray is insufficient to protect the blossoms against infection. This is particularly true in badly diseased orchards and in damp localities. One spraying applied when the red buds are cracking often gives good control in orchards which are not severely attacked. For full protection in badly diseased orchards, two or more sprayings are necessary, starting with the red bud and following in quick succession up to the full bloom or even later, in order to protect the blossoms as they continue to open. Where the trees are badly diseased the control obtained has ordinarily been found to be directly proportional to the number of sprays applied.

Bordeaux mixture has proved the best spray for the control of Brown Rot, and while at this time the data are incomplete, the figures obtained indicate that a spray of stronger strength, say 7-8-50, is more effective than one of the standard 4-4-50 strength.

Because of the frequent damage resulting from the use of lime-sulphur on apricots, it is considered inadvisable to use this spray at any time when a satisfactory control of Brown Rot might be expected. In addition to a tendency to burn the buds, lime-sulphur frequently produces on apricots an injurious effect known as "sulphur sickness." In such cases the foliage is stunted and yellow and the fruit is late in ripening, undersized, and of poor quality. Badly affected trees fail to bloom the following year.

Too much stress cannot be placed upon the necessity of pruning out all old twigs killed by Brown Rot. Experiments both last year and this showed that Brown Rot infections in very carefully pruned trees were about one-third as many as in trees receiving conventional pruning, the spray treatment being identical. This pruning should be commenced in the fall as soon as the crop is off, or even sooner.

Information is still lacking as to a satisfactory method of preventing Brown Rot in the ripe fruit of prunes and apricots. The best that can be recommended at present is to spray susceptible orchards with Bordeaux (4-4-50) as late as possible, without running the danger of leaving the fruit disfigured with spray residue at harvest time. With apricots such spraying may possibly be done up to a month before the fruit is mature. Prunes, since they are washed, may be sprayed even later with no bad results. This subject of controlling the ripe fruit rot is still receiving attention.